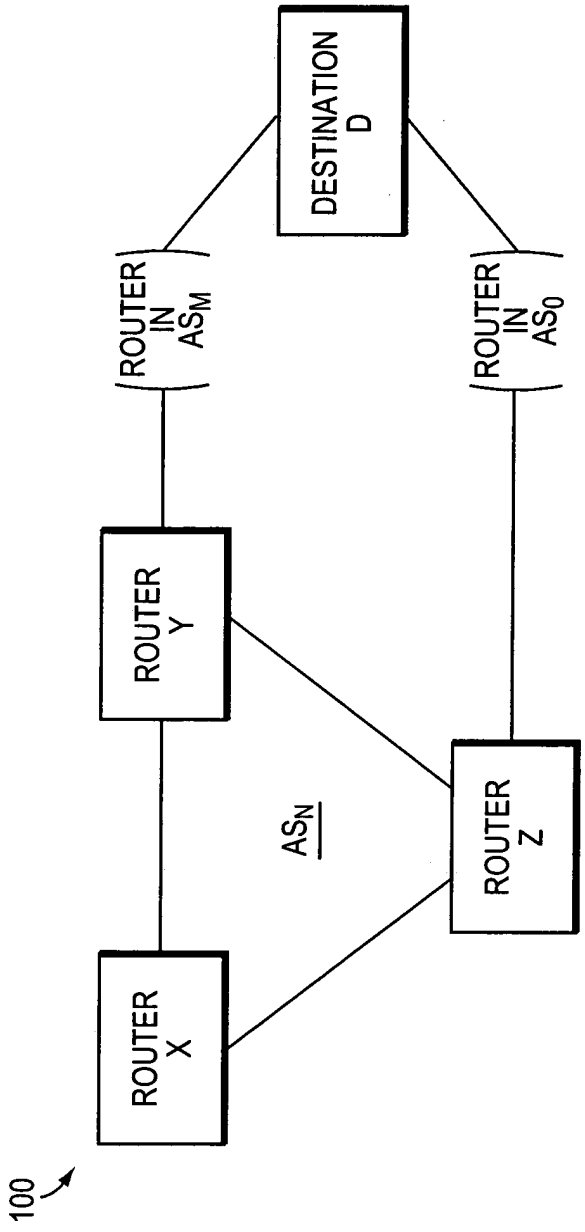
DESTINATION
D
ROUTER
IN
AS$_M$
ROUTER
IN
AS$_0$
ROUTER
Y
ROUTER
Z
ROUTER
X
AS$_N$
100

FIG. 1

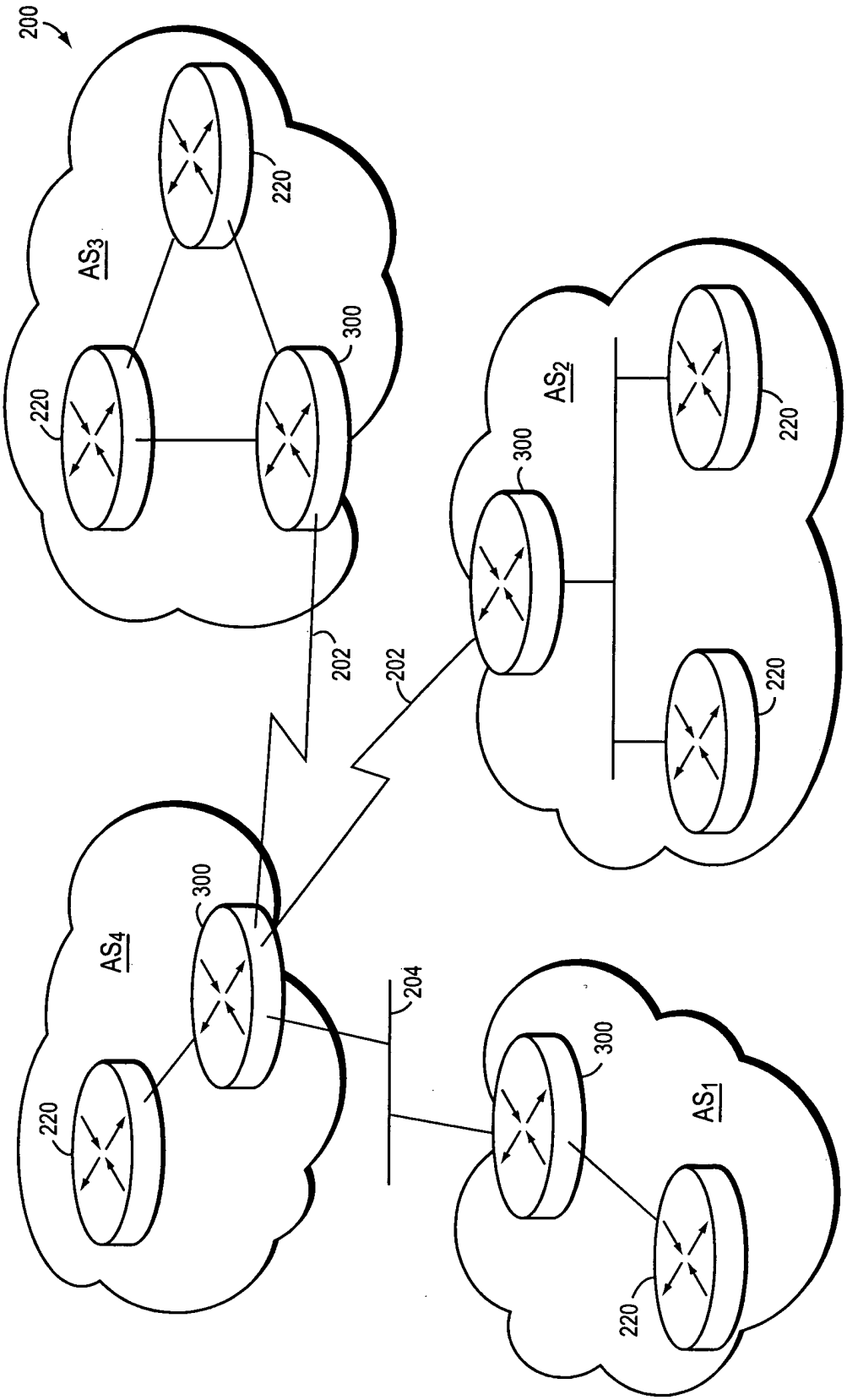

FIG. 2

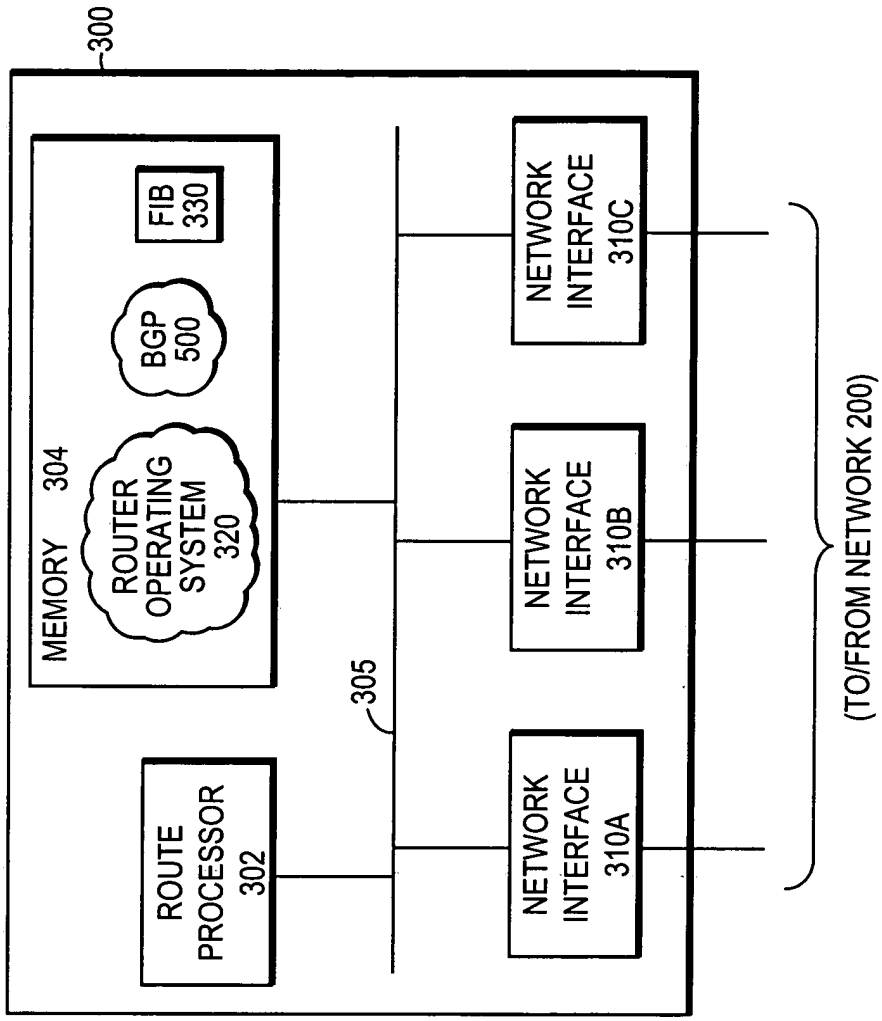
300
MEMORY 304
ROUTER OPERATING SYSTEM 320
BGP 500
FIB 330
ROUTE PROCESSOR 302
305
NETWORK INTERFACE 310A
NETWORK INTERFACE 310B
NETWORK INTERFACE 310C
(TO/FROM NETWORK 200)

FIG. 3

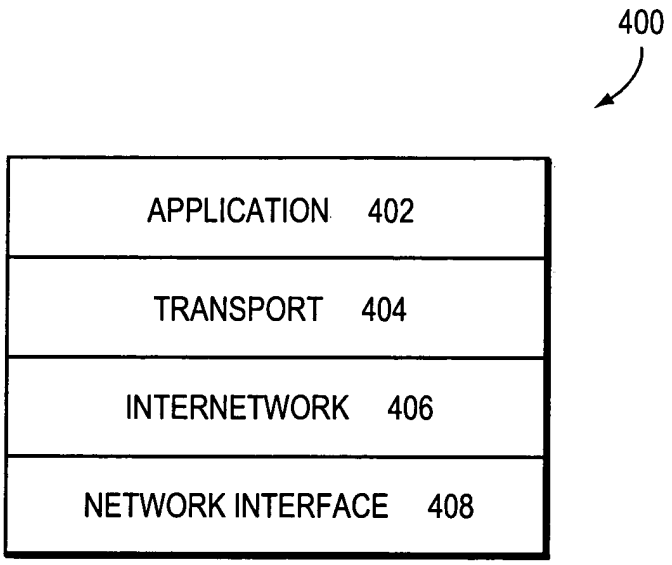
400
APPLICATION 402
TRANSPORT 404
INTERNETWORK 406
NETWORK INTERFACE 408

FIG. 4

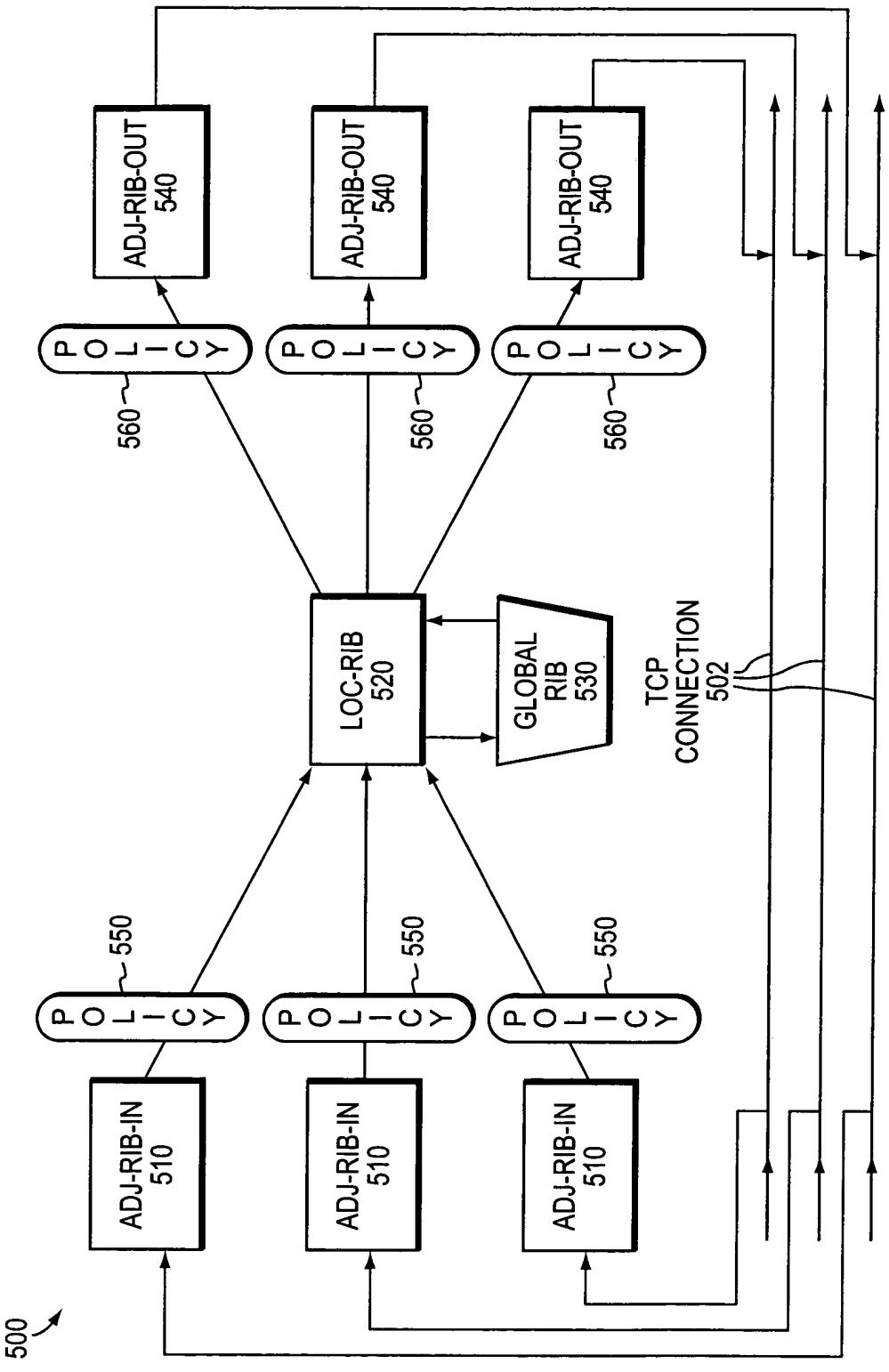
500
ADJ-RIB-IN 510
ADJ-RIB-IN 510
ADJ-RIB-IN 510
POLICY 550
POLICY 550
POLICY 550
LOC-RIB 520
GLOBAL RIB 530
TCP CONNECTION 502
POLICY 560
POLICY 560
POLICY 560
ADJ-RIB-OUT 540
ADJ-RIB-OUT 540
ADJ-RIB-OUT 540

FIG. 5

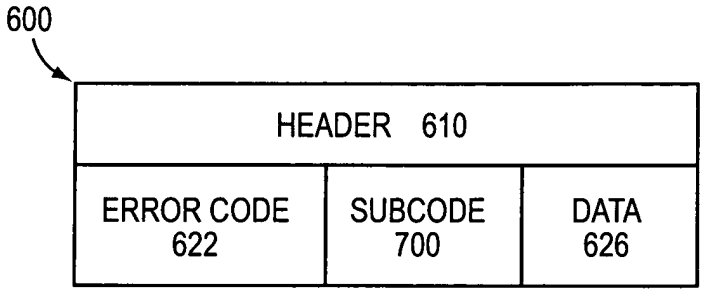

FIG. 6

700

SUBCODE	SYMBOLIC NAME
9	ADMINISTRATIVE GRACEFUL ROUTER SHUTDOWN
10	ADMINISTRATIVE GRACEFUL ROUTER RESET

FIG. 7

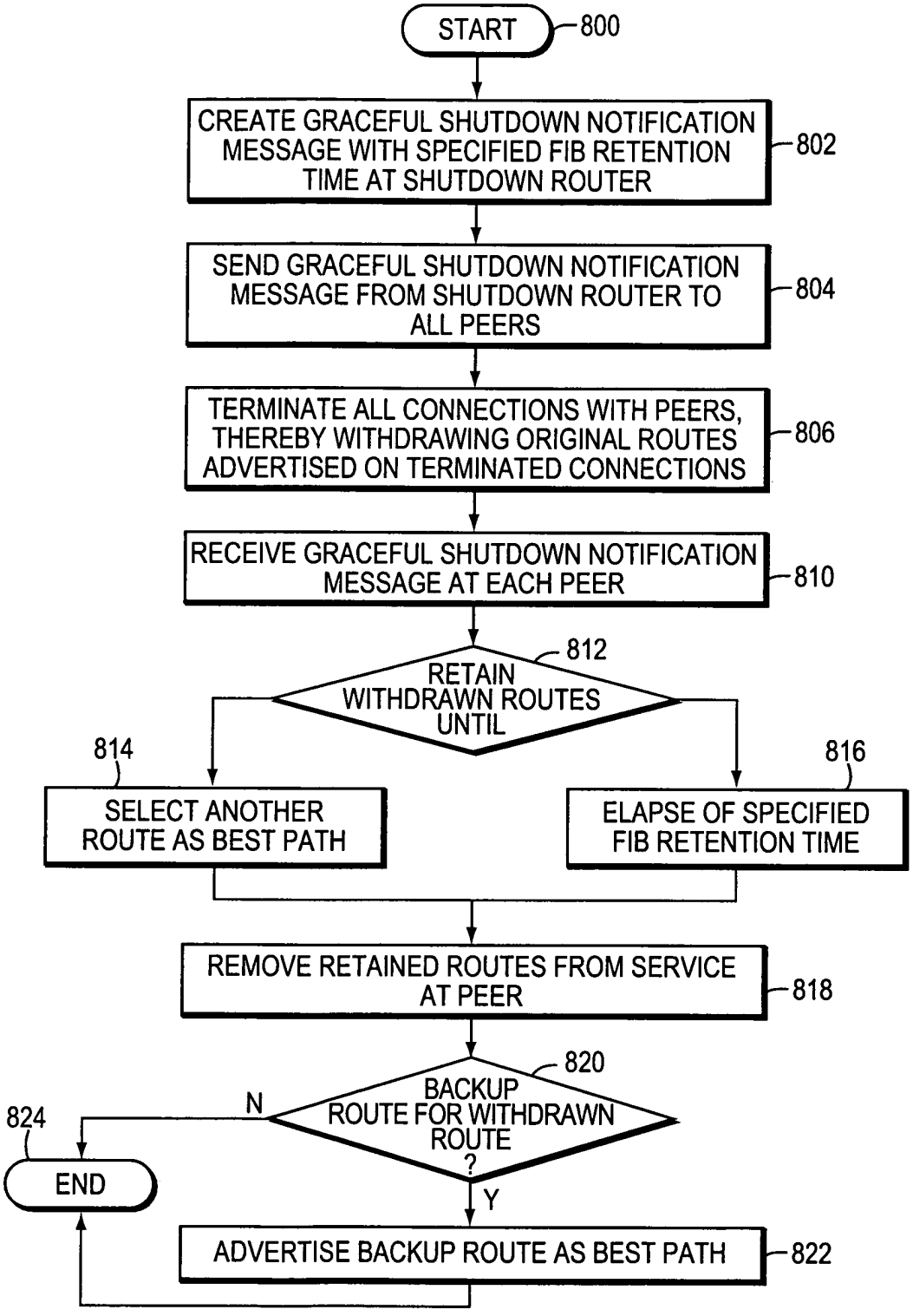
START
800
CREATE GRACEFUL SHUTDOWN NOTIFICATION MESSAGE WITH SPECIFIED FIB RETENTION TIME AT SHUTDOWN ROUTER
802
SEND GRACEFUL SHUTDOWN NOTIFICATION MESSAGE FROM SHUTDOWN ROUTER TO ALL PEERS
804
TERMINATE ALL CONNECTIONS WITH PEERS, THEREBY WITHDRAWING ORIGINAL ROUTES ADVERTISED ON TERMINATED CONNECTIONS
806
RECEIVE GRACEFUL SHUTDOWN NOTIFICATION MESSAGE AT EACH PEER
810
812
RETAIN WITHDRAWN ROUTES UNTIL
814
SELECT ANOTHER ROUTE AS BEST PATH
816
ELAPSE OF SPECIFIED FIB RETENTION TIME
REMOVE RETAINED ROUTES FROM SERVICE AT PEER
818
820
BACKUP ROUTE FOR WITHDRAWN ROUTE ?
N
824
END
Y
ADVERTISE BACKUP ROUTE AS BEST PATH
822

FIG. 8